Volk, Everett

From: Yashan, Dean [DYashan@mt.gov]
Sent: Wednesday, February 05, 2014 4:21 PM
To: Fortman, Kristy; Kusnierz, Lisa
Subject: RE: Riparian Health Assessment in TMDLs
Attachments: RE: Riparian Health Assessment in TMDLs

Lisa and Kristy - How is this for a response?

Guy,

The buffer quality ratings we apply for most of our TMDL development are somewhat qualitative based on both width and overall apparent health, often using aerial photos (via GIS) with some ground-truthing. Buffer health is not as simple as just a determination of buffer width. For example, a wide buffer that is in poor condition is not necessarily better than a thin buffer that is in great condition. From some of my experiences, during TMDL development we tend to look at some of the healthiest buffer examples for differing stream reaches and classify them as "good", and then work from there with the "poor" often representing very little to no buffer.

Keep in mind that the concept/definition of "buffer" needs to be considered. I think a lot of literature values regarding pollutant reductions are likely based on a buffer that represents unaltered, healthy riparian vegetation. As part of TMDL development we need to consider the realities of differing levels of land management within buffers that can impact pollutant reduction potential. These realities are reflected by our estimates of existing loads and potential buffer loading reductions. For example, we cannot always expect that all riparian areas completely exclude cattle since riparian grazing BMPs might provide adequate water quality protection in places. On the other hand, it might be realistic to expect that agricultural fields provide a minimum level of riparian buffer.

Attached is an e-mail response provided by Lisa Kusnierz. She is a TMDL planner working for EPA here in Helena, but also worked for DEQ as a TMDL planner and was the project manager for the Lower Gallatin TMDL you refer to below. Her response covers approach and language within her most recent TMDL document where buffer health and pollutant reductions were incorporated.

From: Guy Alsentzer [mailto:guy@uppermissouriwaterkeeper.org]
Sent: Tuesday, February 04, 2014 12:58 PM
To: Yashan, Dean
Subject: Riparian Health Assessment in TMDLs

Hi Dean,

Hoping you can help answer a question regarding riparian buffer values used in TMDL calculations. As you well know many TMDLs in MT possess a "Riparian Health Assessment" that typically grades vegetated riparian buffers on their ability to trap sediment; classifications are made as "good," "fair" and "poor" with respective reduction efficiencies.

My question is what is the width associated with each category? Not to be confused with the length of a buffer along a riparian zone. Put another way, what is the base width of a "good" "fair" and "poor" buffer in a typical riparian health assessment? I've attached a screenshot of a chart from Attachment C in the Lower Gallatin TMDL to help illustrate my query; the parameters in that chart only appear to describe the length, in miles, of surveyed buffers. Attachment C doesn't include further description of respective widths for classifications.

Thank you in advance for your help!
GA

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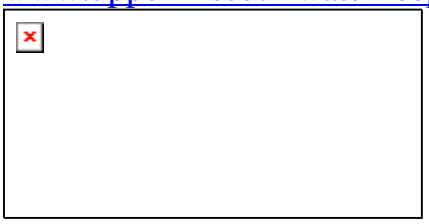

Table 2-5. Riparian Health Statistics for the Lower Gallatin River Watershed.

Stream	Parameter	Riparian Condition		
		Poor	Fair	Good
Bear Creek	Length (mi)	0.00	14.76	5.51
	Percent	0%	73%	27%
Bozeman Creek	Length (mi)	2.28	18.56	10.74
	Percent	7%	59%	34%
Camp Creek	Length (mi)	14.97	35.43	0.28
	Percent	30%	70%	1%
Dry Creek	Length (mi)	2.06	29.94	0.46
	Percent	6%	92%	1%
Godfrey Creek	Length (mi)	12.10	2.14	0.00
	Percent	85%	15%	0%
Jackson Creek	Length (mi)	0.00	14.80	0.77
	Percent	0%	95%	5%
Reese Creek	Length (mi)	2.28	12.58	0.00
	Percent	15%	85%	0%
Rocky Creek	Length (mi)	1.98	12.00	1.10
	Percent	13%	80%	7%
Smith Creek	Length (mi)	0.62	11.98	0.00
	Percent	5%	95%	0%
Stone Creek	Length (mi)	0.00	10.83	0.31
	Percent	0%	97%	3%
Thompson Creek	Length (mi)	3.76	10.62	0.00
	Percent	26%	74%	0%

********** ATTACHMENT NOT DELIVERED **********